

TRANSLATION OF KEY PARTS OF BUFORN PATENT No. 57955 (1914)

(Text extracted from pages 12, 13 and 14)

By using a magnetic field, consisting of two series of electromagnets N and S, a resistor and a circumference of contacts isolated from each other...

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Note that only the contacts located in the Northern semicircle are in communication with half of the end sides of each resistor, and the contacts in the South semicircle are not in communication with the resistor, but respectively with the contacts in the semicircle communicated with half of the end sides of each resistor, and inasmuch as the current moves on the magnetic field and returns from it by the input and output sides of the resistor, and as this field is composed of two series of electromagnets N and S, therefore, and as result of the operation of the device when the electromagnets N are full of current, the electromagnets S are empty, and as the current flowing through them is reducing or increasing in intensity according it passes by more or less turns of the resistor, and therefore, in continuous variation; since we have done a continuous and organized variation we have achieved a constant change in the current which crosses the magnetic field formed by the electromagnets N and S and whose current, after completing their task in the different electromagnets, returns to the source where it was taken.

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We have already achieved to produce the continuous and organized change of the intensity of the current which crosses the magnetic field.

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The way to collect this current is so easy that it almost seems excused to explain it, because we will just have to interposed between each pair of electromagnets N and S, which we call inducers, another electromagnet, which we call induced, properly placed so that either both opposite sides of its core will be into hollows in the corresponding inducers and in contact with their respective cores, or either, being close the induced and inducer and in contact by their poles, but in no case it has to be any communication between the induced wire and the inducer wire.

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If you want even greater production you can place the inducers and the induced one after the other forming a single series in the next way: you place first an electromagnet N, for example, next another electromagnet S, and between their poles and properly placed you put the corresponding induced, with this we will have formed a group of battery as explained before, but now (instead of forming as many identical groups to the first one as number of induced coils needed) you can place, following the last electromagnet S, another induced and, after this last induced you can place an inducer N, following this inducer by another induced, and then by another S, and so on until having placed all the inducers which form the series of electromagnet N and S.

With this we will have succeeded in using the two poles of all inducers except the first and the last one of which we will have only used one pole and, therefore we will have as many inducers as induced minus one, this is, if “m” is for example the number of inducers, then the number of induced will be “m – 1”, which determine a considerable increase in the production of the induced current with the same expenditure of force.

...

Another advantage is that around the core of the induced electromagnets we can put another small size induced electromagnet with equal or greater core length than the large induced one. In these second group of induced an electric current will be produced, as in the first group of induced, and this produced current will be sufficient for the consumption in the continuous excitation of the machine, being completely free all the other current produced by the first induced electromagnets in order to use it in all purposes you want.

